

**REMARKS**

Reconsideration of this application is respectfully requested.

**I. Status of the Claims**

Claims 5-8 and 14-17 are cancelled without prejudice or disclaimer of the subject matter therein.

Claims 3 and 12 have been amended and no new matter is added.

Claims 1-4, 9-13 and 18 are pending.

**II. Status of the Specification**

The Specification has been amended to correctly refer to the Japanese patent reference. This amended paragraph adds no new matter.

**III. Allowable Subject Matter**

Applicants would like to thank the Examiner for the indicated of allowable subject matter in claims 3 and 12. The Examiner indicated that there is evidence in the Specification for the misfit values between lattice constants of approximately +3%.

However, the Examiner contends that misfit values of approximately -3% are not supported in the Specification and cannot be included in claims 3 and 12. The applicable standard as to whether a particular claim is supported by the specification is whether the specification contains sufficient information regarding the subject matter of the claims as to enable one skilled in the p-pertinent art to make and use the claimed invention without undue experimentation. *See*, MPEP § 2164.

Applicants respectfully submit that the Specification enables one skilled in the art to adjust the lattice constant achieve a range of misfit values between approximately +3% to -3%. (*See*, Specification, page 13, line 19 though page 14, line 5 and page 15, line 26 through page 16, line 6). Further, the evidence of the misfit values obtained shows that excellent coercivity and signal to noise ratio are achieved where the misfit between the lattice constants is small. (*See*, Specification



references teach or suggest to one of ordinary skill in the art to combine the references as contended by the Examiner.

Applicants traverse the rejection to claims 3 and 12 because none of the references disclose the hexagonal close packed crystalline structure of the second intermediate layer and the hexagonal close packed crystal structure of the ferromagnetic grains in the magnetic layer and the specific misfit values between the intermediate layer and that of the ferromagnetic grains, as well as for reasons stated below. Applicants respectfully request the Examiner withdraw the rejection to these claims.

Regarding the independent claims, the admitted state of the prior art has not achieved the present levels for noise reduction. Specifically, the admitted state of the prior art fails to teach or suggest to one of ordinary skill in the art the precise control of the structure of the magnetic grains of the present invention and the use of a plurality of intermediate layers on an underlayer prior to laminating the magnetic layer to achieve more reduction of noise or the particular composition of the intermediate layers as claimed in the present invention.

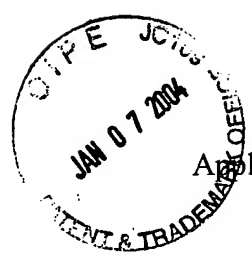
Murayama does not disclose or suggest further controlling the structure of the nonmagnetic layers to control the crystal orientation of the granular magnetic layer. Murayama actually teaches away from the present claimed invention by stating “the present inventors have studied the control of the crystal grain structure of the magnetic film by an underlayer. However, the desired properties of high coercivity and improved media noise were never obtained.” (Murayama, col. 5, lines 46-50). Therefore, Murayama does not teach or suggest to one of ordinary skill in the art to combine Murayama with Futamoto, Chen or Guha to achieve the present invention.

Regarding Futamoto, the Examiner contends that Futamoto teaches a “first perpendicular layer” layer of CoCr with Pt corresponding to applicants second intermediate layer and refers to Table 1 of Futamoto. However, in contrast, Futamoto teaches a CoCrPt first perpendicular magnetic layer (See, Futamoto, col. 4) and not a CoCrPt non-magnetic layer as presently claimed. The “first perpendicular film” reference in Table 1 of Futamoto refers to the first perpendicular magnetization film. (See, Futamoto, col. 10, lines 5-6). Futamoto teaches:

the effective way to further reduce the medium noise is to provide on the first perpendicular magnetization film of Co-based alloy a second magnetization film of which the magnetic exchange coupling force in







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CONCLUSION

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In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

If there are any other issues remaining which the Examiner believes could be resolved through either a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at the telephone number indicated below.

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Respectfully submitted,

By

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